the Internet 102, and on through the wireless service provider 108. The wireless ASP server computer 106 also communicates over the network, such as the Internet 102, with other network connected devices, such as the server computer 104, via particular protocols in communications channels enabled for such communications on the network.

5   In certain embodiments, for example, the wireless ASP server computer 106 and the wireless device 200 communicate with specialized protocols, such as optimized packetized data protocols, for example, optimized TCP/IP protocols or other protocols such as described in the related patent applications.

Communications between the wireless ASP server computer 106 and the wireless

10   device 200 over the network, including through the wireless service provider 108 and the wireless portion, are performed according to special optimized, non-standard protocols and formats. Communications between the wireless ASP server computer 106 and other portions and elements of the Internet, for example, with the server computer 104, are performed according to different protocols and formats, such as standard networking

15   formats like TCP/IP. For purposes of example here, the network protocol is that of the Internet 102 (i.e., TCP/IP) and certain embodiments of non-standard protocols and formats, for the wireless communications between the wireless ASP server computer 106 and the wireless device 200, are described in the related patent applications. The optimized protocols and formats are not limited to those of the related applications,

20   however, and the same principles and concepts described herein apply to other situations and designs, as well.

Referring to FIG. 2, the wireless device 200 of FIG. 1 includes various standard or typical application programs 202. These programs 202 include, for example, a browser

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(e.g., Internet Explorer™), an FTP application (e.g., Bullet Proof™ FTP), and an e-mail client application (e.g., Eudora™). The programs 202 can, of course, be software applications, or firmware or hardware implementations. In any event, the programs 202 receive or use communications over the network's typical protocols, such as TCP/IP,

5   which differ from the specialized protocols of communications between the wireless device 200 and the wireless ASP server computer 106. The wireless device 200 also includes communications elements 204, such as a wireless modem and applications for communicating with the wireless ASP server computer 106 over the wireless portions of the network 200. The communications elements 204 include features for communicating

10   with the wireless ASP server computer 106 according to the specialized protocols for such communications, as previously mentioned and as described in the related patent applications.

Additionally, the wireless device 200 also includes a hooking layer 206, operably connected between the programs 202 and the communications elements 204. The

15   hooking layer 206 is implemented either in hardware or software and is resident on or communicatively connected to the wireless device 200. The hooking layer 206 functions to allow communications of signals received by the communications elements 204 to be communicated, via either an application-standard socket (e.g., Winsock) or a specialized socket (i.e., Sockhook), between the communications elements 204 and the programs 202

20   in forms acceptable to the programs 202. In effect, the application-standard protocol data received by the wireless device 200 is passed to the programs 202 via the standard sockets and any non-standard specialized protocol data received by the wireless device 202 is translated to be acceptable to the programs 202.

Particularly, the hooking layer 206 includes sets of the standard dynamic link libraries (DLLs) (e.g., Winsock.dll) associated with the programs 202. The hooking layer 206 also, however, includes a specialized set of non-standard DLLs (i.e., Sockhook.dll) that are specific for the specialized protocols and allow for appropriate action of the programs 202 in connection with communications according to the specialized protocols of the network 100. As those skilled in the art will know and appreciate, the non-standard DLLs of the hooking layer 206 will depend upon the particular specialized protocols. In any event, the hooking layer 206 serves, in effect, as an invisible proxy to the programs 202 to make communications received by the wireless device 200 useable by the programs, whether such communications conform to standard network protocols or specialized optimized protocols.

Referring to FIG. 3, a method 300 of operation of the wireless device 200 and the hooking layer 206 is a form of switch that determines the applicable DLLs for the protocols of the communications and then provides an applicable socket for the programs 202. The method 300, when a communication is received by the wireless device 200, for example, a wireless communication, commences with a step 302 of receiving the communication 302. The communication is received in the step 302 by the modem and other communication elements of the wireless device 200.

In a step 304, the hooking layer 206 determines whether standard or non-standard sockets are appropriate, based on whether the received communication conforms to standard protocols or non-standard protocols, respectively. If the communication conforms to standard protocols of the network 100, for example, TCP/IP protocols of the Internet, then the hooking layer 206 invokes the standard sockets and standard DLLs,

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